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(72) Inventors RONALD FRANCIS MATTHEWS
FREDERICK GEORGE TURNER

(54) REPAIR OF DAMAGED SURFACE COATINGS USING TRANSFERS

(71) We, RONALD FRANCIS MATTHEWS, of 21 Priory House, Springfield Road, Charlton, London, S.E.7., FREDERICK GEORGE TURNER, of 31 Park Avenue, Orpington, Kent, both British subjects, and ASSOCIATED TRAPINEX LIMITED, a British Company of 176-188 Acre Lane, Brixton, London, S.W.2., do hereby declare the invention, for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:—

The present invention relates to the repair of damaged surface coatings and provides means whereby scratches and other damage to such coatings, more espectially the finishes on motor vehicle bodywork, can be speedily and acceptably made good.

The conventional method of repairing scratches and other superficial damage to motor vehicle body panels involves the application of an undercoat composition and then the application, by brushing or spraying of one or more finishing coats matching in colour the undamaged areas of the panel. This is time-consuming, especially where each successive coat must be rubbed down before the next coat is applied.

The method according to the invention eliminates these tedious stages by the use of an adhesive dry transfer repair patch matching in colour the surface coating to be repaired. After application of the finishing patch the repaired area is preferably waxed and polished in the usual way. The patches can be used not only on motor vehicles, but also on domestic equipment such as washing machines, refrigerators or perambulators.

The repair patch employed in accordance with the invention is characterized by its single colour matching the colour of the coating which it is to be used to repair, and also preferably by having a serrated edge or randomly irregular outline, whereby the edge of the patch after application to the damaged coating is visually less striking than would be the case with a straight or regular outline.

The patches according to the invention can be made from materials already employed in the manufacture of conventional dry strip transfers. Thus a release lacquer may first be applied to a suitable base film, then a paint film is applied to the area of the desired patch, over the release lacquer — where in a conventional transfer the pattern or indicia would be printed — and finally a pressure-sensitive adhesive layer is applied. Instead of paints conventionally employed in dry transfer production, good film-forming motor vehicle body paints of the desired colour can be used.

An alternative method of making the single colour patches according to the invention, which is not suitable for making conventional dry transfers, is by first applying a release lacquer to the base film and thereafter applying a mixed composition composed of a paint of the desired colour and a pressure-sensitive adhesive in admixture. This technique reduces the number of printing or coating stages in manufacture, but the resulting patch must be given time to harden after application to the surface to be repaired.

The patches can be printed in numbers in sheet form, or can be supplied in individual packets of assorted shapes and sizes.

The following is one example of the preparation and use of a repair patch according to the invention.

A base sheet of polystyrene film is coated by the screen printing technique to a film thickness of 30 microns with a release lacquer of the following formulation:—

Non-drying alkyd resin	10 parts
Plasticiser	2 parts
Solvent	80 parts
Nitrocellulose	23 parts

When the release coating has been dried there is printed, on the coated face of the film, patches of serrated outline using a coloured paint of the following formulation:—

Nitrocellulose	25 parts
Non-drying alkyl	23 parts
Plasticiser	3 parts
Solvent	65 parts
Pigment (titanium dioxide)	50 parts

After being dried, the paint film is covered with a layer of a conventional pressure-sensitive adhesive composition. The majority of commercially available screen pressure-sensitive adhesives are suitable for this purpose.

In using the patches so prepared, a damaged area of, for example, a motor car body is freed from grease, a patch of appropriate shape and size is cut from the printed sheet and pressed, adhesive side down, over the damaged area until the paint film adheres securely. The base sheet is then stripped off and the repaired area waxed and polished.

WHAT WE CLAIM IS:—

1. A method of repairing a damaged surface coating on an article which comprises providing an adhesive dry transfer patch having a carrier sheet bearing a coloured area matching the colour of the surface coating, applying the transfer to the surface with the adhesive thereof against the surface and the coloured area covering the damaged area of the surface coating, pressing the patch firmly into contact with the surface and stripping off the carrier sheet.

2. A method according to Claim 1 wherein the coloured area has a serrated edge or randomly irregular outline.

3. A method of repairing a damaged surface coating substantially as described in the example herein.

4. A repair patch for a damaged surface coating of matching colour which comprises an adhesive dry transfer having a carrier sheet bearing at least one coloured area releasable from the carrier sheet and covered with a pressure-sensitive adhesive, the coloured area having a serrated edge or randomly irregular outline.

5. A repair patch substantially as described in the example herein.

REDDIE & GROSE,

Agents for the Applicants,
6 Bream's Buildings,
London, E.C.4.

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